



UNITED STATES NAVY

# MEDICAL NEWS LETTER

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Use of funds for printing this publication has been approved by the Director of the Bureau of the Budget (19 June 1958).

United States Navy  
MEDICAL NEWS LETTER

Vol. 37

Friday, 17 February 1961

No. 4

Rear Admiral Edward C. Kenney MC USN  
Surgeon General

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Rear Admiral Bartholomew W. Hogan MC USN  
Surgeon General, United States Navy, 1955 - 1961



Rear Admiral Bartholomew W. Hogan Concludes  
Term as Surgeon General

Wednesday, 15 February 1961, marks the conclusion of Rear Admiral Bartholomew W. Hogan's term as the 26th Chief of the Bureau of Medicine and Surgery and the 22nd Surgeon General of the Navy, ending six years in this office signified by advances and improvements in the effectiveness of the Medical Department of the Navy. The same date marks the beginning of Rear Admiral Edward C. Kenney's four-year appointment as the 23rd Surgeon General.

Admiral Hogan's original nomination for a four-year term was made by President Eisenhower on 15 January and confirmed by the Senate on 8 February 1955. He was reappointed for a two-year term on 13 February 1959.

Born in West Quincy, Massachusetts on 29 January 1901, Admiral Hogan was the first native of that State to hold the office of Surgeon General of the Navy. He received the degree of Doctor of Medicine from Tufts College Medical School, Boston, in 1925, and was awarded the Phi Lambda Kappa Medal for highest achievement while attending that school. Soon after graduation he accepted a commission as Lieutenant (junior grade) in the Medical Corps of the Navy; subsequently, after advancement through the ranks, he was promoted to Rear Admiral with rank to date from 1 April 1952.

During early years of duty, Admiral Hogan served at Naval Medical Department activities, both continental and extracontinental, and on board the USS MISSISSIPPI and USS RELIEF as a Medical Officer in the fields of internal medicine and psychiatry. In March 1942, he reported as Senior Medical Officer on board the USS WASP and was aboard that carrier in South Pacific waters when she was torpedoed by a Japanese submarine on 15 September 1942. For heroic service during this action, he was awarded the Silver Star Medal. "With his carrier swept by flaming gasoline and rocked by explosions, Commander Hogan, despite his own serious wounds, worked tirelessly, caring for the injured," the citation reads, "until forced to abandon the stricken ship." Rescued and taken aboard the USS DUNCAN, he continued to perform professional duties. "In spite of serious burns on both hands and several fractured ribs, (he) immediately took active charge of caring for the many painfully injured carried aboard the DUNCAN, continuing his supervision of medical attention to the more seriously wounded until the early hours of the following morning. By his unfailing loyalty, exceptional skill, and outstanding devotion to duty, he contributed immeasurably to the comfort and welfare of the suffering and weary men under his care." For this additional action and wounds received, Admiral Hogan was awarded the Navy and Marine Corps Medal and the Purple Heart.

After the sinking of the WASP, Admiral Hogan returned to the United States and in November 1942 reported as Assistant Personnel Officer in the Bureau of Medicine and Surgery. In that capacity he was liaison officer with

the Bureau of Naval Personnel for establishment of the V-12 premedical, pre dental, medical, and dental training programs. For an outstanding degree of performance of this duty he received a Letter of Commendation from the Chief of the Bureau of Naval Personnel.

From January 1944 to his appointment as Deputy and Assistant Chief, Bureau of Medicine and Surgery in 1954, Admiral Hogan served as Executive Officer of the Naval Hospitals at Annapolis, Philadelphia, and Bethesda; Senior Medical Officer, USS TRANQUILITY; Commanding Officer of Naval Hospitals at Mare Island and Bethesda, and the Naval Medical School, Bethesda; and lastly, Fleet Medical Officer, Staff, Commander in Chief, Pacific Fleet, and Chief of Staff for Medical Matters, from July 1953 to April 1954.

Admiral Hogan has contributed many articles to the professional literature in the field of neuropsychiatry; his other efforts, both in peace and war, have been recognized at home and abroad. He has received the "Medaille de vermeil," the Medal of Honor of the French Navy Medical Service; the Peruvian Cross of Naval Merit (grade of Grand Officer); and the Royal Swedish Armed Forces Crown-crested Plaque. He received the honorary Doctor of Laws degree from Mt. Saint Mary's College, Emmitsburg, Maryland, in 1945, and from Villanova College in 1954. The honorary Doctor of Science degree was awarded him by both Boston College and Tufts University in 1955, and Marquette University in 1956.

Admiral Hogan is a Fellow of the American Medical Association, American College of Physicians, and American Psychiatric Association; Honorary Fellow of the International College of Surgeons; Diplomate of the American Board of Psychiatry and Neurology; and a member of the American College of Hospital Administrators, Board of Trustees of the American Hospital Association, and House of Delegates of the American Medical Association. In addition, he is an Examiner for the American Board of Psychiatry and Neurology, and an Associate Professor of Psychiatry, Georgetown University School of Medicine, Washington, D. C.

Admiral Hogan is married to the former Grace Gloninger of Emmitsburg, Maryland and Pittsburgh, Pennsylvania; they have three children, LT Bartholomew T. Hogan MC USN who is serving an internship at the U. S. Naval Hospital, Bethesda, Maryland, Thomas F. Hogan, III, and Mary Ledlie Hogan.

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Inside Front Cover. Bjorn Egeli is the artist who painted the portrait of Admiral Hogan which now hangs in the Stitt Library, Naval Medical School, Bethesda, Md., a photograph of which appears on the cover. Commissioned by the Navy Medical Department Historical Society, the portrait was presented to the Department of the Navy on 16 January 1961 (News Letter, 3 February 1961). The photograph was prepared by the Medical Photography Department of the Naval Medical School.



Resume of Rear Admiral Hogan's Years  
as Surgeon General: 1955 - 1961

(This resume of the progress and achievements of the Medical Department of the Navy during the six years of Admiral Hogan's leadership as Surgeon General has been set down by a guest writer, based on personal reminiscences of Admiral Hogan.)

Rear Admiral Bartholomew W. Hogan MC USN assumed the office of Surgeon General of the Navy in February 1955. For him, in a personal sense, it marked the transition from an already fruitful career as a clinician and hospital administrator to the beginning of a new and vastly more challenging career as the director of a large, far-flung military medical organization—the Navy Medical Department.

But, for the newly appointed Surgeon General, the situation was a disturbing one: circumstances in the world during preceding years had resulted in low morale among medical officers of the Armed Forces. The necessity to recall to active duty for the Korean conflict many Reserve Medical officers who not too many years before had been dislocated by World War II, caused much bitterness. Uncertainties about the future of military medicine, and problems of specialty training coupled with dissatisfaction at frequently not being able to practice that specialty had disturbed the nucleus of Regular Medical officers. Relations between civilian and military medicine were strained; often, common objectives were lost in misunderstanding.

It was not a relaxing or auspicious time for one to embark on the highest level of a Navy medical career—a term as Navy's Surgeon General.

During the ensuing six years of Admiral Hogan's tenure of office, there emerged a rejuvenated and reoriented medical organization which is now a credit both to the Navy and to medicine wherever it is practiced. That this occurred is of moment, but of even greater interest and importance is the method by which it was accomplished.

The solution was surprisingly simple—in retrospect—and was predicated upon certain time-tested though occasionally lost-sight-of principles. The first of these principles was that the entire medical complex has as its nucleus the concept of "patient care." All of the parameters of medicine, preventive medicine, medical research, and medical training have their purpose and place; but, at the center is "patient care." This consists simply of caring for patients in a way that insures their being made comfortable, receiving prompt treatment, and return to duty as useful members of the military community. This, of course, involves much more. It means endless inspection of small details such as quality and preparation of food, treatment skills, sanitation, plant facilities, and employee and patient safety; but always from the standpoint of what is best for the patient.

The second principle brought into play was improved communication within the Medical Department so that common objectives were understood by all.

Admiral Hogan was the principal architect of his plan for rebuilding the Navy Medical Department. In April 1955, he communicated his plan in a memorandum addressed to all officers of the Medical Department of the Navy, in which he said, "I have twelve major objectives I shall strive for. I want you to know about them and I ask for your help in reaching them." He then went on to add that in the field of personnel management, everything possible would be done to insure that each member of the Medical Department, whether Reserve or Regular, would be treated fairly, frankly, and with just consideration for whatever special conditions were involved in his particular case. This latter was the third basic principle—humanized personnel relationships. The 12-point program as enunciated by the Surgeon General consisted of the following objectives:

1. Strong recommendation for a policy of unrestricted voluntary retirement after 20 years of active military service.
2. Advocacy of increased financial benefits for career officers in order to encourage more officers to choose at least a 20-year career in the Navy and to reduce the need for drafting civilian physicians and dentists. Some compensation would thereby be made for the added training expense incurred by physicians and dentists.
3. Stabilization of the length of tours of duty insofar as possible in order to minimize the frequency of transfers.
4. Reduction of the length of tours of sea duty and the number of sea duty billets consistent with fleet readiness requirements.
5. Consolidation of medical field activities to promote better utilization of Medical Department personnel.
6. Utilization of civilian physicians in certain assignments that were not of dominant medical military significance.
7. Establishment of a firm basis for medical care of military dependents by appropriate legislation and regulations.
8. Strengthening in every possible way the Reserve components of the Medical Department through beneficial legislation and favorable regulations.
9. Support of the military Medical and Dental Scholarship Program of the Department of Defense.
10. Strengthening of the current residency and postgraduate training program in order to maintain and raise the standards of medical care provided active duty personnel. Insofar as the exigencies of the service would permit, the training of residents leading to Board qualification without interruption would be arranged.
11. Encouragement of research and the publication of professional reports at all levels.
12. Strengthening the position of Executive Officers of naval hospitals by increasing their professional responsibilities and decreasing routine



administrative burdens. Also, strengthening the position of Administrative Officers in naval hospitals by transferring to them certain administrative responsibilities assigned to the Executive Officers. This was to be done without jeopardizing the traditional position of the Executive Officer as successor to command and without weakening the training for command function inherent in the position of the Executive Officer.

In his quest, Admiral Hogan achieved a remarkable success.

The Secretary of the Navy soon permitted the policy of unrestricted voluntary retirement after twenty years of active military service to be extended to all officers of the Medical Department.

Navy efforts to increase the financial benefits for career Medical and Dental Corps officers resulted in the enactment of Public Law 497 of the 84th Congress and was the principal instrument in effecting a reduction in the flood of resignations which had occurred in 1953 and 1954.

Marked success was achieved in stabilizing lengths of tours of duty, which resulted in significant economies and improved professional standards of care because of greater continuity.

Tours of sea duty for medical officers, formerly 24 months, were reduced to 12 to 15 months. This contributed significantly to improved morale and likewise prevented deterioration of professional skills.

Numerous field medical activities were consolidated and did in fact promote economy of effort and funds.

Civilian physicians were employed in assignments that were not of dominant military medical significance. (At the present time, 80 civilian physicians are so employed.) This permitted use of trained medical officers in assignments where their military training could be better utilized.

Navy's efforts to obtain legislation for the medical care of military dependents resulted in the enactment of Public Law 569 of the 84th Congress. This legislation was of inestimable assistance primarily to some 40% of military dependents living in areas remote from military medical institutions.

Within the framework of its organization, the Bureau of Medicine and Surgery made significant advances in the utilization of their Reserve medical officers and, in addition, developed the Senior Medical and Dental Student Programs which pointed the participants toward a career in the Regular Navy Medical and Dental Corps. Clinical clerkships for medical students with Reserve Navy commissions and midshipman cruises for these embryo physicians also offered opportunities for presenting to a select group the advantages of a career in the Navy.

The residency training program was almost doubled in size and increased substantially in scope. At the present time, it is considered to be the second most important part of the program in strengthening the career Navy Medical Corps and has done much to improve the already high standards of patient care.

As the result of accomplishing some of the objectives, there has been about a 30% increase in the numbers of regular Naval Medical officers who

have been accredited by the various American Specialty Boards. There has been a commensurate increase in those who have completed their training and are about to complete their American Board examinations in the near future.

During this period, there occurred great strides in the professional quality of the medical care furnished. This is now evidenced by increased acceptancy by, and interrelationships with, civilian medical authorities in a great many areas. Further evidence is shown by the increasing good health of the Navy and Marine Corps as a whole. Many contributions have been made to the improvement of civilian medical and dental care, such as the pioneer work in tissue transplantations, prolonged preservation of frozen blood, and high speed dental drills.

The Medical Department has cooperated wholeheartedly in improving the extent of cross servicing of the Armed Forces by the various medical activities. This has served to obtain all the potential efficiency and economy benefits without complete unification. There are now several triservice medical agencies operated by and for the three Medical Departments, with complete harmony.

Legislation was supported, which was enacted by Congress, that improved the rank structure and distribution of the officers of the Medical Service Corps and of the Nurse Corps. Furthermore, from February 1955 to the present date, the percentage of Regular Naval Medical officers on active duty has risen from 35% to 61%. During this same time, the Dental Corps Regular officer strength has risen from 38% to 60%.

In the field of improvement of physical facilities, there has been a large hospital addition at San Diego and new hospital buildings at Portsmouth, Va., Great Lakes, Ill., Guantanamo, and Guam have been constructed. Two new wings have been started for replacement facilities at Bethesda. There have also been a number of station hospitals, dispensaries, and smaller medical activities either built or in that process at present.

The Medical Corps has responded wholeheartedly in a number of international health situations with the generation, at very little expense, of a tremendous amount of good will.

Admiral Hogan has traveled practically all over the world and has visited almost all of the Naval medical activities.

As recognition of his untiring zeal and perpetual enthusiasm to help others, he has been awarded high decorations by France, Peru, and Sweden. He has been awarded honorary degrees from five American universities.

These, and many other gains too numerous to mention, have resulted in a well-rounded, efficient, and effective organization, full credit for which may rightly be ascribed to the decisive and imaginative leadership of Admiral Hogan.

\* \* \* \* \*



### Cancer Quackery

Justin J. Stein MD, Cancer Research Institute and the Department of Radiology, UCLA, School of Medicine, Los Angeles, Calif. Amer J Surg 100: 808-812, December 1960.

The world has never been free of quackery in some form. In ancient times many of the priest-magicians were certainly quacks in the truest sense. Many people allegedly practicing medicine could neither read nor write; they believed in charms and amulets and all types of superstitions and sacred remedies. Sorcery, witchcraft, and driving demons from the victims was part of the trade.

Quacks are not governed by any type of ethics, honesty, or financial responsibility. They do not have to worry about performing any carefully controlled experiments or investigations in a scientific manner. The period of 5 years after treatment which is used as a guide to measure the results of treatment by ethical physicians and investigators means nothing to quacks for their motives are usually entirely selfish ones.

#### The Problem

The modern quack, in contrast to the quack of olden times who traveled by coach, stage, or on horseback with his own accompanying entertainment, may be a graduate of a medical school. He may outwardly be polished with a smooth ready tongue, and full of promises to the patient that he alone can cure when others have failed. His remedy is known only to him and must be administered by him. Those who disagree with him are attempting to keep him from "helping mankind." He readily states that he is being persecuted by the medical trusts. He is a selfish greedy person, a perpetrator of crime on his fellow man, and a fraud of the worst type.

There is a great emotional factor associated with cancer. Individuals suffering from this disease are frequently surrounded by well meaning persons who are ready to give advice which often is not to the patient's best interest. Many patients and their relatives are willing to grasp at any "straw" in the hope that a successful end result will be obtained. Aside from the loss of money paid to the quack is the fact that many persons seeking his aid may never have had cancer in the first place; in such instances, they have needlessly suffered mental anxiety and torture.

One-third of all patients with cancer are being saved at the present time by prompt recognition and appropriate treatment. The great tragedy is that some patients with early curable lesions will be treated by quacks employing worthless methods until it is too late for appropriate treatment to be instituted. Even patients with far-advanced cancer can be greatly

benefited by chemotherapy, hormone therapy, and by use of other tried and proven measures.

The cancer death rate is steadily increasing; approximately 700 Americans die of cancer daily. Cancer quacks—probably numbering in excess of 4000 in the United States—fleece their victims of some ten million dollars annually. Fees for worthless remedies and advice which is dangerous to the patient's health may vary between three and six hundred dollars or more.

Cancer does not represent a single disease but a multiplicity of diseases, each with its own history and particular response to certain methods of therapy. If proper treatment is not instituted while the disease remains localized, the chances for survival diminish to the vanishing point. Cases of spontaneous regression of cancer in which no treatment has been given are on record; this seldom occurs. Others may have cancers which do not continue to grow but remain quiescent for indefinite periods of time. Should the quack treat a patient who happened to have a cancer which fell into either one of these categories, he would certainly take all the credit.

#### Definition of Quackery

The Commission on Cancer of the California Medical Association has defined a quack as having one or more of the following characteristics: (1) his treatment is available only from himself; (2) his treatment bears his own name or that of a high-sounding research organization; (3) his treatment is advertised; (4) he claims he is being persecuted by the medical trusts; (5) his cured patients and greatest supporters have only his word for it that they had cancer in the first place; and (6) he discourages or refuses consultations with reputable physicians.

Also, it might be added that very poor records, or no records, are kept and biopsy confirmation frequently has not been made. He will not permit other investigators to use his material in a carefully controlled clinical trial. Very influential persons may back him as has been the case many times in this country. He is also ready to institute legal action against anyone who dares oppose him or call him a quack. One may ask the question, "How about the physicians who use approved methods of treatment, but do so in an incompetent manner?" These physicians are not really quacks in the strict sense of the word. It is hoped that more physicians of this type will be eliminated by elevation of standards for medical schools and by other professional requirements.

#### Reasons for Quackery

Many patients consult quacks in desperation, sometimes because they have been abandoned by their own physician, or they have a fear of being operated



upon or receiving irradiation. They may also believe that it will be much cheaper to consult a quack than a legitimate physician. Some people believe that all cancers are incurable. Quackery will continue as long as man continues to fail to fight fear with knowledge, to grasp at straws without investigation, to enjoy taking medicines, and to be hoodwinked.

### Need for Legislation

In evaluation of any method of treatment one must be absolutely sure that the patient had cancer in the first place. One must also be certain of the safety and sterility of the preparations to be used. Therefore, a legislative program is necessary to prevent exploitation of the public by unethical individuals using worthless and harmless remedies and machines in diagnosis and treatment of malignant disease.

Effective means must be found to properly investigate claims which are made for diagnosis and cure of cancer when no scientific evidence has been presented. The public must be kept informed of the progress being made in diagnosis and treatment of cancer and quacks must be exposed. Many people still have inadequate information as to how cancer is properly diagnosed and treated.

Educational programs must be instituted to counteract the claims of well-meaning, misguided people who make speeches and write magazine articles which protect the dishonest selfish deceitful users of unorthodox methods.

Until the Pure Food and Drug Act became a law in 1907, dispensers of all forms of nostrums were under practically no control. In the field of cancer therapy, one of the major difficulties which handicaps the work of the Food and Drug Administration is that the jurisdiction of the agency is confined to products, methods, or devices used in interstate commerce only.

### The Physician's Responsibility

Some of the obligations which the physician assumes when he treats a patient with cancer include these precepts:

- (1) Maintain the morale of the patient and his family; this is vital. Avoid at all costs giving the patient the idea that nothing further can be done to check the course of his disease. Always hold out, in some manner—but honestly so—a hope to which the patient can cling that something of value can be done. Never hesitate to suggest the possibility of consultation.
- (2) Never, under any condition, abandon the patient. When the physician gives no hope, the patient gives up hope.
- (3) Make the prognosis clear to some responsible member of the family.
- (4) Use any available effective method to slow the progress of the disease.
- (5) Keep the patient as free of discomfort as possible.
- (6) Explain the problem of cancer quackery to the patient and the family.

### Horizons of Liver Disease

Fenton Schaffner MD and Hans Popper MD, Department of Medicine, The Mount Sinai Hospital, New York 29, N.Y. Horizons in the Study of Liver Disease. Amer J Dig Dis 5: 1051-1058, December 1960.

Changing concepts and approaches in pathology are reflected in the study of the liver. The shape of the organ attracted interest long before it was related to disease processes. However, only after foundation of clinical-pathologic correlation by Morgagni and the Italian School was an energetic attempt made to recognize the gross anatomic and subsequently microscopic substrates of diseases developing in the liver.

#### Present-Day Clinical Pathology

The classical period of hepatic pathology was succeeded by modern pathology about 25 years ago when liver biopsy permitted evaluation of the alterations in the living patient, when use of hepatic tests was widely expanded and, finally, when various types of human liver diseases—particularly those related to malnutrition—were reproduced in experimental animals. All three approaches as well as improvement in knowledge of the physiology of the liver allowed correlations to be made between structural alterations and functional changes.

Gradually, application of hepatic pathology shifted from the broad concepts of liver diseases to diagnosis in the individual patient in an attempt to provide objective clinical aids based either on morphologic or functional method. This appearance of hepatic pathology at the bedside helped in the understanding not only of diseases primary in the liver, but also of the hepatic reaction to a disease process elsewhere in the body; the concept of nonspecific reactive hepatitis was thus proposed. Correlations established some factors of etiology in liver diseases, but many remained unsolved. For instance, etiology of cirrhosis in many patients is still a riddle. We can thank modern pathology, however, for therapeutic leads in treatment of some of the side effects of hepatic injury such as ascites or electrolyte imbalance. Portal hypertension is now being attacked surgically as a result of studies of vascular alterations in cirrhosis. However, rational therapy directed toward restoration of the basic functions of the damaged liver cell still does not exist.

#### The Coming Era

In the last few years the hepatic pathology of the future seems to have arrived. As the result of introduction of biophysics and fine structural cytochemical and submicroscopic technics, structure and function are being identified. If the intracellular mechanism of the failure of the liver becomes known, a



rational therapy may be developed. Moreover, many basic studies on nucleic acids and their relation to genetics and to normal and abnormal protein synthesis as well as to metabolic pathways and alterations resulting from enzyme defects are being carried out using the liver as a model. These fundamental studies may eventually give the key to the understanding of many diseases not really related to the liver.

Intracellular Sites of Hepatic Injury. A variety of drugs, most of them proved metabolic poisons, regularly and predictably injure the liver cells. Newer knowledge indicates the specific sites of this injury which may be mitochondria, the organelles that provide the energy requirements of the cell. Many common poisons such as carbon tetrachloride are said specifically to damage these organelles. The ergastoplasm is another organelle called the microsomal fraction when isolated by centrifugation technics. This specific cell structure—the site of formation of proteins, sterols, and bile acids—engages in detoxification and contains some of the enzymes that release sugar to the blood. Specific poisons for this structure are not as yet well established, although it appears that the virus of hepatitis attacks here.

Drug Jaundice. Study of intracellular changes has particular practical importance at this time because drug-induced hepatic injuries are increasing in significance with the mounting use of newly developed drugs. Some drugs in exceptional instances produce a picture that cannot be separated clinically from viral hepatitis by various hepatic tests or under the light microscope. The electron microscope possibly can be used to separate the two types. A second group of drug injuries results in cholangiolitis which may also be induced by virus or a variety of other insults, and may occur in a chronic form as biliary cirrhosis. The mechanism of cholestasis has been the subject of much argument through the years. The electron microscope localized the site of the injury to be in that specialized portion of the wall of the liver cells that constitutes the bile canaliculi. The hope is expressed that the combined use of various technics including analysis of enzymes in the liver might eventually lift the mystery surrounding the occurrence of drug-induced hepatic injury in a very small number of patients and yield information as to whether genetic differences or hypersensitivity reactions are of greater importance.

Hepatic Fiber Formation. Clinical-pathologic correlations have permitted development of criteria for recognition of progression of cirrhosis and classification of cirrhosis on etiologic and other bases. Fine structural methods have permitted a direct attack on the problem of formation of fibers within the liver. The liver cells surrounded by newly formed fibers are either damaged or necrotic, and proliferation of bile ductules is probably also a reflection of the alteration of the liver cells. Therefore, liver cell injury seems to be the most important stimulus for new formation of fibers within hepatic parenchyma. However, no evidence has been found that the liver cells or ductular cells themselves form the fibers. This seems to be

a function of neighboring mesenchymal cells which include activated Kupffer cells, reticuloendothelial cells and, possibly, other inflammatory cells.

Autoimmune Phenomenon. The role of the reticuloendothelial cells in the liver and in other organs in hepatic injury acquired added importance when it was shown that they probably produced a protein under these circumstances, considered to be gamma globulin. Further investigations are under way to establish the antigen to which this gamma globulin is an antibody. These studies lend support to the recent view that an autoimmune mechanism exists that is responsible for chronicity of liver disease. Therapeutic implications involve attacking the reticuloendothelial hyperplasia to prevent both the autoimmune reaction and the fibrosis, in addition to attempting to improve the function of the parenchymal cell.

### Conclusions

With the aid of newer technics in study of the finer structure of the liver—electron microscopy, histochemistry, cytochemistry, and immunocytochemistry—rifts are developing in the clouded horizons of liver disease. The mechanisms of drug injury, cholestasis, hepatic fiber formation, hypergammaglobulinemia, and chronicity in liver disease are gradually becoming better understood. However, therapeutic implications remain vague and await future clarification of the basic mechanisms of intracellular injury.

\* \* \* \* \*

### Fatal Bronchial Asthma

James W. Messer MD, Gustavus A. Peters MD and Warren A. Bennett MD, Section of Medicine, Mayo Clinic and Mayo Foundation, Rochester, Minn. Causes of Death and Pathologic Findings in 304 Cases of Bronchial Asthma. Dis Chest 38: 616-624, December 1960.

There is a widespread impression that bronchial asthma seldom causes death. The authors present a study which shows clearly that the disease terminates fatally more often than is generally thought. They summarize data obtained in a review of all cases (304) in which the clinical diagnosis of bronchial asthma was made at the Mayo Clinic during a 40-year period (1916 through 1955) and in which necropsy was performed.

Incidence. During one year (1955) a diagnosis of bronchial asthma was made in 1.4% of all patients who registered at the Mayo Clinic. Of deaths occurring among all clinic patients seen during that same year, 3.4% were among asthmatic patients; 1.5% (25 patients) of the asthmatic patients seen that year died during the year—4 from status asthmaticus and 2 from complications of asthma; the remainder from other causes.



Duration. The age at the time of death from status asthmaticus (35 cases) varied from 5 to 78 years. Of the status asthmaticus patients, 37% died before, and 63% during or after, the age of 51 years. More than 51% died in the age period 51 through 70 years. The range in age at the time of death among patients dying from a complication of bronchial asthma other than status asthmaticus was similar to the range for those with status asthmaticus.

Duration of bronchial asthma in years before death varied from one to 66 years. Of the patients dying of status asthmaticus (group A), 20% died within 5 years after the onset of asthmatic symptoms, 45.7% within 10 years, 65.7% within 20 years, and 82.9% within 30 years.

Of the deaths due to a complication of bronchial asthma other than status asthmaticus (group B), 12.9% occurred within 5 years after the onset of asthma, 32.2% within 10 years, 51.6% within 20 years, and 67.7% within 30 years.

Cause of Death. Of the 304 patients included in the study, 35 (11.5%) died during status asthmaticus; 31 (10.2%) died from complications of asthma including bronchiectasis, bronchopneumonia, and emphysema; 238 died from apparently unrelated causes—cardiovascular and malignant disease accounted for approximately 60% of the deaths in this group.

Gross Pathology. Emphysema was common in both groups: 97.1% of group A (of marked degree in 52%), and 81% in group B. The bronchial walls were thickened in 40% of cases in group A and in 29% of those in group B. Pulmonary edema was found in approximately one-fourth of the cases in each group. Hydrothorax and pleural adhesions were each nearly twice as frequent in group A (17%) as in group B. Bronchopneumonia was found in nearly half of the patients in group B; in this group it was more than five times as common as in group A. Atelectasis was uncommon in either group; however, abnormal bronchial contents (mucus, purulent exudate, or both) were found in 97.2% and 71% of cases in groups A and B, respectively. Bronchiectasis occurred in nearly one-half of the cases in group B, but in less than 15% in group A.

The incidence of abnormally heavy hearts was 58% and 75%, respectively, in groups A and B. Right ventricular hypertrophy occurred in 90% of cases in group B and in nearly 70% of those in group A.

Microscopic Pathology. Complete obstruction of bronchial lumina by mucous plugs was found in all cases of group A, and less commonly in group B. Bronchial epithelium showed hyperplasia in about 33% and frank metaplasia in nearly 75% of cases in each group, with an evident relationship between presence of bronchiectasis and metaplasia. Hypertrophy of bronchial smooth muscle was common in both groups—severe hypertrophy being twice as common in group A—and showed no correlation with duration of asthmatic symptoms. Patients with severest hypertrophy also had severe thickening of epithelial basement membrane. Bronchial fibrosis was observed in more than 80% of cases in both groups.

### Arrested Chronic Ulcerative Colitis

Everett D. Kiefer MD and Robert R. Gialanella MD, Department of Gastroenterology, the Lahey Clinic, Boston, Mass. *Gastroenterology* 39: 687-689, December 1960.

In the field of therapy for chronic ulcerative colitis, emphasis in recent years has been on surgery. A lowered postoperative mortality rate and improvements in construction of the ileal stoma and prosthetic appliances have made colectomy more acceptable to both patients and physicians.

The only known cure for chronic ulcerative colitis is total colectomy. Surgeons have sometimes been critical of their medical associates for persisting with nonsurgical management. When medical treatment fails to relieve serious chronic disability or prevent repeated life-threatening flareups of colitis, and the ultimate clinical course is one of gradual deterioration, the criticism is fully justified.

Nevertheless, the internist's position in the controversy is not without justification. Experience with the disease has shown that approximately 23% of patients can be maintained in good health without serious disability and with only infrequent minor episodes of active colitis. Nonspecific medical measures used in these cases undoubtedly are effective, but the main factor in successful management is that the patient is fortunate enough to have a less severe form of the disease.

Because total colectomy, either with or without permanent ileostomy, is associated with a definite risk and at best is not without certain shortcomings, it is both practical and justifiable to defer radical operation in this group. Of special interest are the groups of patients who remain free of symptoms and signs of colitis for 5 years or longer, indicating that in some instances ulcerative colitis is a self-limited disease or, at least, may be designated as arrested. The authors studied 73 such cases in search for one or more common denominators that might suggest a reason for the favorable course of the disease.

In the group of patients with apparently arrested chronic ulcerative colitis, sex distribution was not significant, but there was a tendency toward a somewhat older age for onset of the disease. Duration of the disease when the patient first came under treatment had no apparent significance; in 21 cases the duration was less than 6 months, in 15 it was more than 5 years.

The most evident common feature in this group was the moderate severity of the disease. Systemic manifestations were of little consequence and caused no disability in 21 patients, in 43 the disability was intermittent, and in only 9 was it severe and constant. Destruction of the colon was mild or moderate in severity; the so-called fulminating ulcerative colitis with massive extensive destruction of the mucosa was not observed in this group. Extent of the involvement was also limited, with involvement only of the rectum or of



the rectum and sigmoid in 29 of 73 cases. Radiographic changes were chiefly those of the early phases of the disease. Organic changes in the bowel after the active phase of colitis had subsided, resulted in surprisingly little functional change, provided the activity of the inflammatory process had completely and more or less permanently subsided.

Survey of treatment received by this group with unusually good clinical results reveals no outstanding therapeutic measure that was generally successful. Dietary management, rest, mild sedation, and supportive therapy were given to 25 patients; 30 patients received some poorly absorbable sulfonamide; corticotrophin or steroid hormones were used in only 18 persons.

For maintenance of remission, some measures were continued indefinitely. Dietary restriction was one of the more important of these measures. Psychic tranquility was recognized by many patients as important in maintenance of their good health.

The possibility of increased susceptibility to cancer of the colon is emphasized by the fact that 3 persons in this group of 73 have died of cancer of the colon, even though their colitis had apparently been inactive for many years.

\* \* \* \* \*

#### New Treatment for Diarrhea in Children

Louis A. Farchione MD, State University of New York, College of Medicine, Syracuse, N. Y. Use of a New Intestinal Motility Inhibitor for Treatment of Diarrhea in Children. Arch Pediat 78: 23-26, January 1961.

Thihexinol methylbromide, a new parasympathetic blocking agent, has been reported to act with relative specificity on gastrointestinal motor function. Oral doses of the drug, producing no significant suppression of gastric secretion, cause marked prolongation of gastrointestinal transit time. The author, employing this agent in 153 children mostly with acute types of diarrheal disorders, reports his observations. The age spread was from 2 weeks to 12 years. Clinical diagnosis of nonspecific enteritis was made in most of the cases.

In a group of 41 patients treated with thihexinol after initial treatment with another form of therapy, 75% showed excellent to good results and 17% showed poor results. Another group of 112 patients treated from the beginning with thihexinol resulted in 82% showing excellent to good results and only 4% poor results. The only side effect noted during treatment with this new agent was an infrequent mild flushing of the skin in younger infants occurring in 4% of the total cases. It was eliminated by decreasing the dosage and did not necessitate discontinuance of the drug.

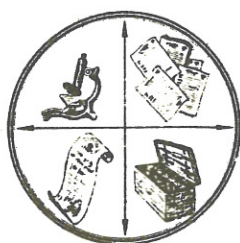
In several cases in which thihexinol failed to control the diarrhea within 72 hours, the initial dosage was then doubled. The increased dosage

was well tolerated, and there was marked symptomatic improvement in the following 24 hours. This suggests that, at least in some of the poorly responsive cases, a higher initial dosage of thihexinol might have effected an earlier control of diarrhea.

Worthy of mention is that stool frequency and consistency were decidedly improved in the majority of patients during the first 24 hours of thihexinol therapy. None of the 153 patients required hospitalization for parenteral management of dehydration. Moreover, maintenance of usual dietary intake in almost all cases did not appear to delay or decrease the antidiarrheal response to the drug.

The author concludes that his observations indicate that thihexinol is an efficacious and well-tolerated drug for nonspecific treatment of diarrhea in children.

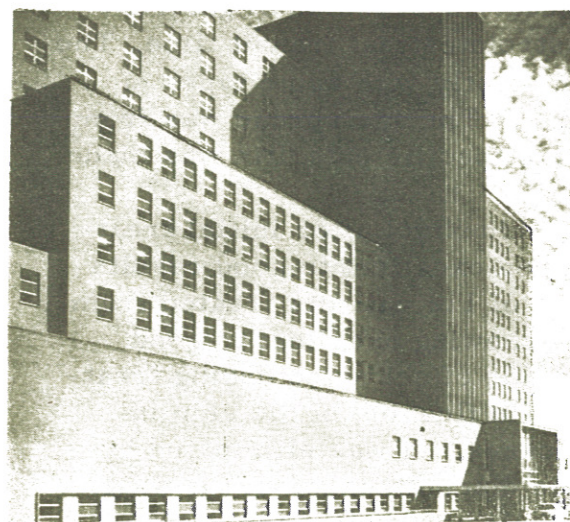
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## MISCELLANY

### New Hospital at Great Lakes Dedicated

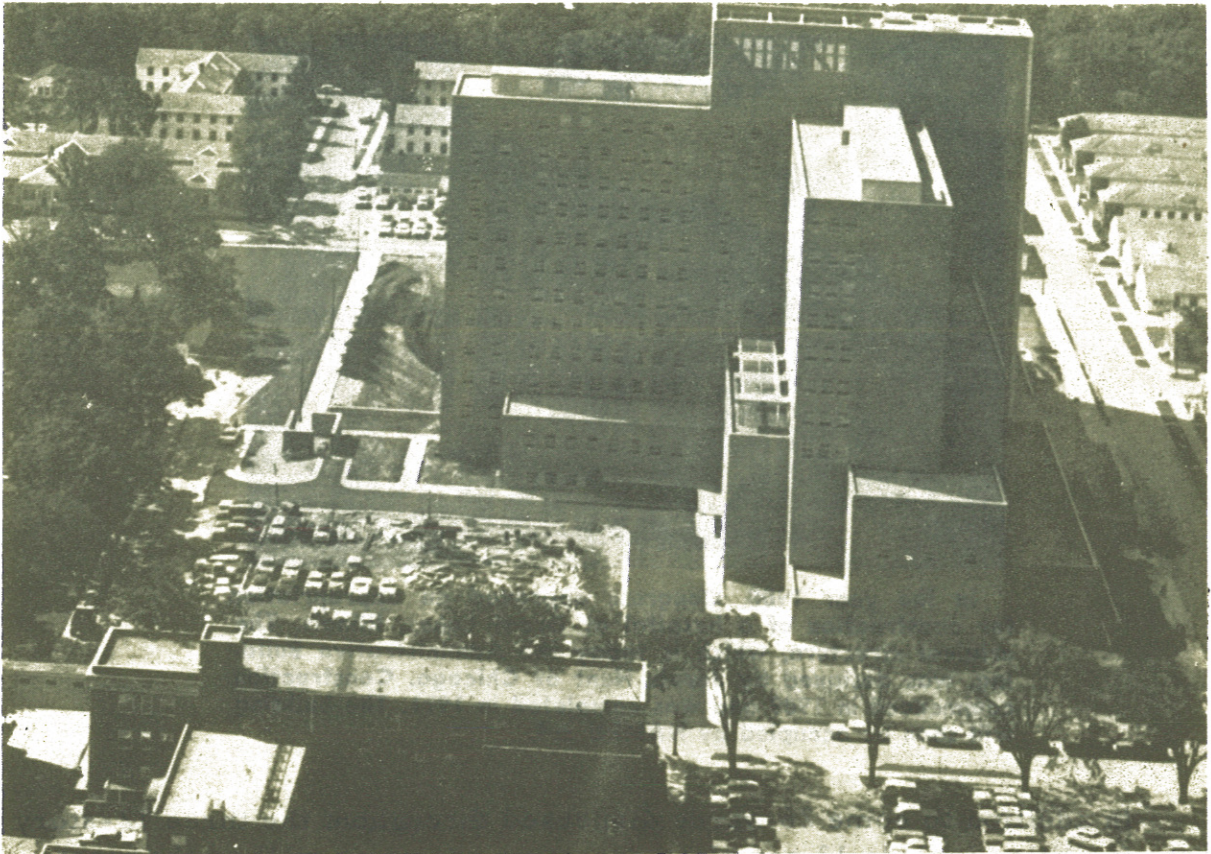
After years of hoping and approximately 10 years of actual planning and construction, the magnificent new 800-bed, 15 million dollar Naval hospital building at Great Lakes, Ill., was dedicated in December 1960. Gone now



are many of the old wooden barracks-type wards in use during World Wars I and II and later years; still more will be gone in the near future as the new building finally allows the old single-story units to be razed. They barely served their purpose during the days when construction material was scarce and any building sufficed to house the thousands of sick and injured that flowed through the hospital. But now, their passing will be missed only because the new and truly modern facilities are appreciated all the more.

Construction began in 1957 on the T-shaped building—15 stories and a



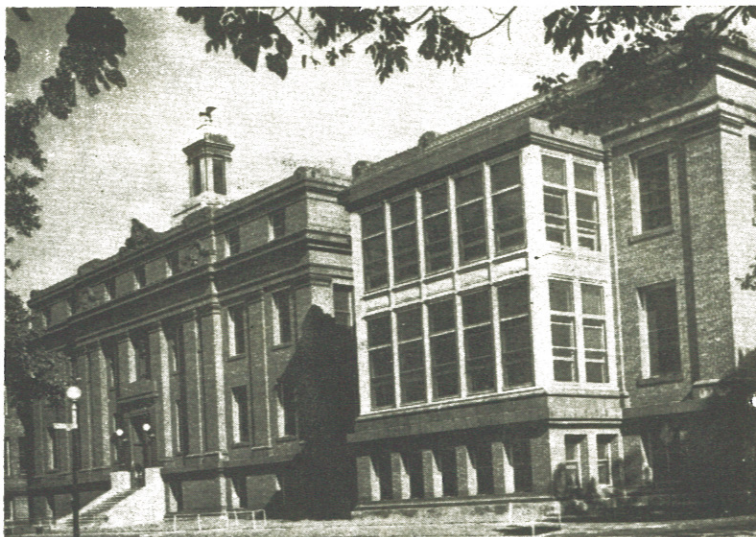


**The hospital's striking beauty has become a landmark for the surrounding area.**

basement in the center core, with three 12-story and basement wings to the north, east, and south, respectively. The present building was planned to accommodate 800 beds; another wing, to be added in the future as funds become available, will increase the capacity to 1500. The hospital will serve not only the Navy but all branches of the Armed Forces as well—officers, enlisted personnel, and dependents. Additional plans provide for a large auditorium to be constructed to the south of the new building with direct connection to it.

The latest in equipment makes the fully air-conditioned hospital one of the most modern in the nation—civilian as well as military. Included are: sonic energy cleaner that sterilizes surgical equipment; a central system which pipes oxygen into wards and operating rooms; piped nitrous oxide system in surgery; overhead anesthesia panels in all operating rooms; closed circuit TV system; radiant heat snow melting system under service drive and loading area; and a complete emergency electrical system including Diesel generators. Separate service and passenger elevators will completely eliminate exposure of patients to visitors and nonhospital personnel. Patient traffic and service cart traffic will bypass all public areas.





**In the year 1908, Congress approved an appropriation for construction of a hospital at Great Lakes, Illinois. The original structure, which is today the Administrative Building, was designed by Jarvis Hunt of Chicago. Construction commenced in 1909 and was completed in 1911. The building will soon be occupied by NAMRU #4.**

In addition to some 26 wards dispersed throughout the three 12-story wings, facilities include 13 complete operating rooms as well as the most modern physical therapy and rehabilitation department, laboratories, specialty clinics, and other patient care units. For the comfort and convenience of the patients and staff, other facilities are provided which include a Navy Exchange and restaurant, library, barber and tailor shops, post office, bank, and chapel.

A hospital at Great Lakes dates back to 1908 when Congress appropriated \$250,000 for construction of a hospital on the bluff overlooking Lake Michigan. The land, first settled by a Mr. Swain in 1837, and subsequently a site for a sawmill, had been purchased by the Government in 1905 for a hospital. The original buildings were dedicated in 1911 and were well utilized during World War I, when thousands of influenza victims were treated. Its usefulness apparently over, the hospital was closed in 1933 only to be reopened two years later with an authorized capacity of 150 beds, when some increase in military training was taking place. During World War II, the many one-story barracks-type wards were hurriedly put up on almost every available location on the grounds and annexes across the highway. At the height of the patient load, in 1943, the census reached 8,179; a total of 40,000 patients were hospitalized during that year. Finally, in 1956, Congress authorized construction of an 800-bed hospital building; ground was broken and construction begun on 31 July of that year.



The dedicatory address was made by RADM E. C. Kenney MC USN, Deputy Surgeon General of the Navy, who was introduced by RADM C. G. Clegg MC USN, District Medical Officer, Ninth Naval District. ADM Kenney, along with RADM J. M. Higgins USN, Commandant, Ninth Naval District, and RADM E. J. Peltier CEC USN, Chief, Bureau of Yards and Docks, participated in laying the cornerstone, "officially" concluding construction of the latest of the Navy's hospitals. Previously, the building had been turned over to the Commanding Officer, CAPT J. B. Butler MC USN. Transfer of patients was accomplished under the supervision of CAPT S. Ede MC USN, Executive Officer, and CDR D. J. McLellan MSC USN, Administrative Officer.

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#### Precautions Advised in Use of Chloramphenicol

The Food and Drug Administration of the Department of Health, Education, and Welfare, in a recent release by FDA Commissioner George P. Larrick, announced that a panel of distinguished physicians appointed by the National Research Council at the request of the Food and Drug Administration had found that the antibiotic, chloramphenicol, is a valuable drug that should remain on the market for use in treating serious infections under medical supervision both in hospitals and in the home. The panel—which included Dameshek, Finland, Keefer, Smadel, Spink, Wintrobe, and others—also recommended revision of the labeling of the drug to give added emphasis to the warnings against its use in minor infections and calling attention to the necessity for adequate blood studies when use is required.

The Commissioner also announced that Parke, Davis and Company, Detroit, Mich., the manufacturer of chloramphenicol—marketed as Chloromycetin—is cooperating in relabeling the drug in compliance with these recommendations.

The consensus of the NRC panel was that: "The information should be disseminated as a warning on the drug label and elaborated in an enclosure in the drug package. Beyond this, there is need for the continuing education of the physician through the media of medical meetings and medical literature. This, of course, is a responsibility of the leaders of medicine and not of the Food and Drug Administration."

Elaborating on the role of individual and specific responsibility in this area, the panel recommendations continued: "More effective education of physicians in the proper use of drugs must be a continuing consideration. The role of pharmaceutical companies in postgraduate medical education cannot be overestimated. Leaders in medicine must face this situation boldly and realistically if standards of practice are to be improved. The medical educators who constitute the editorial boards of a number of medical journals could exert some influence if they would improve the advertising that appears in their journals."

Chloramphenicol which is life-saving in certain severe infections, such as typhoid and some drug-resistant staphylococcic infections, infrequently produces blood disorders, some of which can be fatal. FDA first requested an NRC-appointed committee to weigh the hazards of the drug against its usefulness in 1952, following a nation-wide survey of case histories of blood disorders associated with use of the drug.

In August 1952, the NRC committee recommended that marketing of the drug continue to be permitted under label warnings advising against its use for minor infections, and calling attention to the necessity for adequate blood studies when prolonged or intermittent use is required. Such warning labeling has been used since that time.

FDA's Medical Director, William H. Kessenich, said the new NRC evaluation of the drug was requested because of continuing reports of blood disorders associated with increasing use of the drug. In some cases, the drug has been used in minor conditions in disregard of labeling warning statements; in other instances, the drug has been employed in conditions in which safer and equally effective drugs—or no antibiotics—were indicated. This raised the questions as to whether the drug should be taken off the market or restricted to use in hospitalized patients; or, whether marketing should continue under revised patterns of labeling which would be more readily available to physicians, and which would present the increased emphasis on the hazards of the drug and the more restricted indications of its proper use.

In view of the NRC report, Dr. Kessenich stated, regulations governing labeling of Chloromycetin are being revised immediately to require an insert in every package of the drug for oral or parenteral use.

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#### From the Note Book

Admiral Hogan Retires on 1 March. Retiring from his position as Surgeon General of the Navy on 15 February 1961, Admiral Hogan will be placed on the Retired List of the Navy on 1 March 1961. After the duties of Surgeon General are turned over to Admiral E. C. Kenney, Admiral and Mrs. Hogan will escape the snow and cold of this winter's weather and enjoy the sun and sea of Florida for two weeks. On return to Washington, they will be at home at 5512 Grove St., Chevy Chase 15, Md.

Dr. Hoogstraal Honored. Dr. Harry Hoogstraal, U. S. Naval Medical Research Unit No. 3, Cairo, Egypt, has been elected honorary fellow of the Egyptian Public Health Association "for his invaluable contributions in the field of public health," and for the considerable influence he has exerted in the fields of human and veterinary medicine in Africa and Asia. Dr. Hoogstraal will be spending much time in the next few years in the Sudan studying the epidemiology of kala-azar. (TIO-BuMed)



Ulcer in Childhood. Between 1930 and 1958, duodenal ulcer was diagnosed in 109 infants and children at the Mayo Clinic; ages ranged from 24 hours to 14 years. Later information from 92 patients revealed that 53 had no further difficulty but 39 had persistent or recurring symptoms. Judging from a group followed for longer periods, there appears to be a 50% chance that a duodenal ulcer which begins in childhood will cause symptoms when the patient is an adolescent or adult. (W. Michener, et al, Am J Dis Child, December 1960)

Stabilized Peroxide as Chemotherapeutic Agent. As a result of preliminary study of a new stabilized urea peroxide in ointment-like form, it appears that the product offers interesting possibilities as a new approach to cleansing of infected and contaminated lesions of the skin and mucous membrane. Its cleansing and debriding action as well as its antibacterial effectiveness may prove to be factors of the greatest importance in its use. (H. Cobe and E. Ploumis, Antibiot Chemother, December 1960)

Treatment of Decubitus Ulcers. Routine care of decubitus ulcers should encompass only simple principles of wound care and patient care. The author describes basic principles—nutritional, mechanical, biologic, and surgical. Stress is laid upon prevention and simplicity in nonoperative therapy. (S. Kahn, Surg Clin N Amer, December 1960)

Chymotrypsin in Surgery. The authors present 50 patients with varying surgical lesions and their responses to treatment with chymotrypsin preparations. Results were excellent in 46% and good in 46%; the incidence of failure was 2%. The enzyme was found to be an effective adjunct, useful in all conditions in which edema, inflammation, and infection were retarding healing. (A. Morani, et al, J Int Coll Surg, December 1960)

Removal of Abnormal Electrolytes from Banked Blood. Acid citrate dextrose (ACD), the usual preservative for banked blood, lowers the pH of the blood. During storage, the pH declines further and there is a progressive accumulation of ions, particularly plasma potassium and blood ammonium. A transfusion of two or three pints of ACD blood is well tolerated by most patients; a massive transfusion of such blood is dangerous. Passing the blood over a cation exchange resin prior to transfusion can obviate such risk. (T. Nealon Jr, Surg Clin N Amer, December 1960)

Abolition of Renal Autoregulation. The phenomenon of renal autoregulation can be abolished by renal decapsulation. It is dependent in large measure upon the normal presence of the relatively nonexpansile capsular envelope and the increasing intrarenal pressure as the blood pressure rises from approximately 80 mm of mercury to higher levels. (G. Bounos, et al, Surg Gynec Obstet, December 1960)

Hemodialysis in Myasthenia Gravis. Five patients with myasthenia gravis were temporarily improved by hemodialysis. Improvement showed itself in partial amelioration of symptoms and signs and also by reduced need of medication. The benefit is tentatively explained by removal of a circulating neuromuscular blocking substance. (E. Stricker, et al, J. Neurol Neurosurg Psychiat, November 1960)

Cancer and Adenomas of Colon. Tests for blood in the stool have long been used to aid in early detection of cancer of the colon. Questioning the value of this test, the authors evaluated results from a series of 10,068 consecutive patients who underwent proctosigmoidoscopy. Carcinoma of the colon was found in 83 patients. The benzidine fecal blood test was positive in less than 66%; gum guaiac test was positive in about 50%. They concluded that neither reagent was sufficiently accurate to screen patients for carcinomas or adenomas of the colon. A good history was considered to be more reliable than a fecal blood test for this purpose. (A. Cameron, et al, Amer J Surg, January 1961)

Prevention of Implantation of Cancer Cells. Implantation of cancer cells into the wound during operation for malignant disease with development of local recurrences is an ever present hazard. In a study in which the authors tested the efficacy of approximately 25 solutions in destroying implanted cancer cells in the wounds of rats, they found that nitrogen mustard, 1 to 2 mg%, and sodium hypochlorite, 0.5%, buffered to pH 9.0 were about equal in efficiency. They subsequently adopted use of a 4-minute irrigation with the latter solution at the end of operations for cancer. (G. McDonald, et al, Amer J Surg, January 1961)

Antibiotic Therapy of Chronic Amebic Colitis. Combinations of oxytetracycline-oleandomycin or tetracycline-oleandomycin in doses of 1.5 gm daily for 10 days were more effective than 2.0 gm of oxytetracycline or tetracycline administered singly. Administration of these antibiotic combinations to 200 patients caused no serious adverse reactions that would preclude them as safe therapy of chronic amebic colitis. (E. Loughlin and W. Mullin, Antibiot Med, December 1960)

Prognosis in Regional Enteritis. Reviewing experience at Columbia Presbyterian Medical Center in New York City, the authors report a medical "salvage" rate of only 10.3% of 165 patients during a recent period of 25 years. The surgery of preference was ileocelectomy and ileotransverse colostomy. Recurrence rate varied with duration of follow-up and rose from 19% in patients followed for 2 years to 44% in those followed for 10 years. In their experience, steroids were not "curative," only supportive and complementary. (F. Gump and M. Lepore, Gastroenterology, December 1960)



## AVIATION MEDICINE DIVISION



### Observations on Human Subjects Living in a Slow Rotation Room

Based on the work of CAPT Ashton Graybiel MC USN, Brant Clark PhD, and CDR J.J. Zarriello MC USN, Naval School of Aviation Medicine, Naval Aviation Medical Center, Pensacola, Fla., this condensation of a research report describes a new stressful procedure and the constellation of symptoms manifested by persons subjected to this stress.

The procedure consists essentially of carrying out activities in a slowly rotating room for periods of two days. The symptoms most nearly resemble those observed in motion sickness, but certain similarities are also seen when comparison is made with symptomatology in vasodepressor states, anxiety and depressive states, sleep, and, indeed, in various disturbances characterized by psychosomatic symptoms. Inasmuch as the symptoms are the direct or indirect result of stimulation of the semicircular canals, the most precise term covering the general symptomatology is probably, "canal sickness." Although the procedure is specifically applicable to studies of the function of the semicircular canals, it has additional usefulness as a means of investigating certain aspects of the brain stem activating system. The extraordinary flexibility of the procedure in terms of both strength and duration of stimulation enables the experimenter to conduct prolonged experiments for study of adaptation, after-effects, and habituation of stimulation. No studies have been found which have made provision for prolonged slow rotation of an experimental room. However, Clark and Hardy report a study of "long duration acceleration" during which one subject remained in the cockpit of the Johnsville centrifuge for 24 hours while it rotated continuously to produce 2 g. The investigators were concerned primarily with effects of increased g, but the subject was necessarily exposed to constant rotation.

The procedure used in the authors' laboratory was designed to make it possible to study the activities of a selected group of subjects while they lived in an experimental room which rotated at a constant angular velocity.

A nearly circular, windowless room was constructed around the center post of the Pensacola human centrifuge. It was 15 ft in diameter and 7 ft high.

There was zero angular acceleration of the centrifuge at the constant velocities of rotation used, and the semicircular canals were not stimulated so long as the subject's head was fixed. Movements of the head stimulated the

canals by virtue of the angular acceleration incidental to this movement, but more particularly by virtue of any change in the relation of the semicircular canals to the plane of rotation. Translation of the body (head) in a direction parallel to the axis of rotation would not result in stimulation of the canals. Turning the head about an axis parallel to the axis of the room rotation would stimulate the canals in almost the same pattern as if the room were stationary. However, turning the head about any other axis would result in a complex pattern of stimulation as a result of the angular accelerations incidental to this movement and the change in direction of the force acting on the several canals. The magnitude of this stimulus depended on the velocity of rotation of the head and the velocity of rotation of the room. Although the actual forces involved could not be determined accurately, the important variables were: (1) angular velocity of the room; (2) nature of the head movements; and (3) open or closed position of the eyes. The angular velocity was fixed for each run, while head movements could be estimated on the basis of periods of bodily rest and activity and voluntary restriction of body movements. The random character of the movements and the fact that they were voluntary were important factors in the situation.

The experiment involved three distinct phases of observation. The first of these was a training period during which the subjects learned to do certain tasks at arbitrary levels of performance. In general, this phase included a series of tests and performance measures under the usual static conditions with no rotation. The second step was rotation of the subjects at a constant velocity for two days, and obtaining test and performance measures at regularly scheduled intervals. The final phase of the experiment involved tests and observations under static conditions following the period of rotation.

Four persons lived continuously in the room during each run. One of these was the inside observer whose primary job was to conduct the tests; however, he was also given a selected group of tests. Two of the persons were experimental subjects who were tested regularly on a prearranged schedule by the inside and outside observers, the latter using the communication system to contact the subjects. The fourth person who also performed the scheduled tests and tasks was deaf and effectively had no otolith and semicircular canal function.

One inescapable conclusion from this experimental procedure using the rotation room is that the subjects were exposed to substantial amounts of stress, particularly at the higher rotational velocities. Furthermore, the bizarre intermittent stimulation of the semicircular canals is undoubtedly the dominant factor in the situation. Two lines of evidence indicate that the cardinal signs and symptoms manifested by the subjects had their origin in the semicircular canals. One of these centers around the fact that the significant stimulus was angular acceleration, while the other is based on the fact that a subject who had lost the function of the semicircular canal along with other sensory organs of the inner ears did not experience these symptoms.



In the absence of a rotating environment, none of the head movements performed by the subjects caused any unusual symptoms or untoward effects. Consequently, the complication introduced by rotation of the room was an essential component of the unusual or bizarre pattern of stimulation. However, even in the presence of constant rotation, movements of the head produced little or no feeling of unpleasantness. Thus, all subjects learned very quickly that upward or downward translation parallel to the axis of room rotation and rotation of the head about such a parallel axis did not give rise to symptoms except at high angular velocities when slight imperfections in carrying out these movements became important. It was movement not parallel to the axis of rotation of the room which gave rise to the symptoms under consideration, and even here, certain patterns of movement were better tolerated than others. All of these bizarre patterns of stimulation had in common the fact that afferent impulses from the canals conflicted either with each other or with the input from other sensory sources such as vision, the proprioceptor system, and contact sensibility, or both.

Neurophysiologic Mechanisms. The influence of impulses from the canals on the central nervous system was declared, among other things, by drowsiness sometimes quickly resulting in prolonged sleep. Drowsiness or apathy in some degree was reported by every healthy subject, although individual variation was great. Strength of stimulation was an even more important variable.

The most striking instances were observed shortly after the onset of rotation in the morning when the subject, within an hour's time, exhibited the changes from a fully alert even moderately excited state to that of profound sleep lasting for hours. The subjects complained of drowsiness and malaise and were allowed to lie down, whereupon they fell asleep. The sleep appeared to be quite natural but not wholly refreshing.

It would seem likely that the diencephalic sleep center was stimulated. Indeed, the findings may answer the question raised by Bremer concerning the validity of Hess's technic. Moreover, these findings raise the question of the relation of the sleep center to the reticular formation with its arousal function. The need to extend these preliminary observations is obvious.

The antidiuretic effect observed has been the object of special investigation by Taylor, et al. They have shown that a "pituitary-type" antidiuresis is a regular accompaniment of "laboratory induced motion sickness" and that there is a correlation between the degree of nausea and antidiuresis. Although they did not establish the precise etiologic mechanism, the evidence was in accord with liberation of a hormone from the neurohypophysis and its recovery in urine. In another study utilizing these technics in the author's laboratory, a water-loaded subject exhibited a conspicuous reduction in urinary output; bio-assay of the urine produced, in turn, antidiuresis in rats. (Prof Walter B. Johnson participated in this experiment and carried out the assay procedures.)

Similarity of the symptomatology in vasodepressor states deserves comment. Pallor, sweating, and nausea are common to both, and circulatory changes occur regularly, although less prominent than in motion sickness or canal sickness. Weissler and Warren emphasized that widespread neurohumoral activities characteristic of vasodepressor syncope are not all explicable on the basis of circulatory changes. Karp, et al, have observed diminished mental ability in human subjects during the presyncopal hypotensive phase which precedes appearance of slow wave activity in the electroencephalogram.

Some small variations were observed in blood pressure and in the electrocardiogram. Although none of these determinations was made while the subject was moving his head, blood pressures were obtained at the mid-point of the dial test at which time symptoms were prominent. The variations noted did not exceed normal fluctuations, except in a few instances when a slight lowering of both systolic and diastolic pressures was recorded. A striking exception deserves mention; this was a chance observation in a scientist who was exposed on a single occasion to rotation at 6 rpm. After a few minutes he complained of nausea and reclined in a seat with head fixed for the remainder of the run which lasted about 15 minutes. On arising he felt faint, whereupon he was placed on a cot. He did not lose unconsciousness, but the pulse was barely palpable and initially the blood pressure—using the Korotkoff procedure—was not determinable. Soon thereafter the heart suddenly slowed and the blood pressure was 112/76 mmHg; however, he did not feel equal to getting up for over 40 minutes.

Alterations in the electrocardiogram consisted of a single interpolated ventricular beat, rather slow heart rates, and lowering or inversion of T waves in Lead II which may have been due to overventilation. There were no instances of fainting and no instances of dimming of vision on change to the upright position. Dizziness was a complaint, but its interpretation was complicated because it was usually associated with bodily (head) movements. Much more prominent cardiovascular symptoms have been noted during exposure of subjects to bizarre patterns of stimulation of the semi-circular canals, but one cannot escape the impression that they are not very prominent and certainly far less significant when comparison is made with vasodepressor states.

The most definite and significant visual symptom was oculogyral illusion. This phenomenon was an illusion of movement and displacement of everything in the field of vision which, although in accord with the stimulus pattern generated by head movement, nevertheless appeared to be nonsensical and created the impression that the room was moving in different directions. The resemblance to movements observed on ship-board during a storm were uniformly commented upon. Although the visual illusions aggravated the general symptomatology and closing the eyes resulted in improvement, yet severe bodily symptoms were experienced with



eyes closed. This abolished visual perception but not the accompanying neural impulses to other parts of the nervous system. Gradual abolition of the oculogyral illusion was a striking feature of the adaptation process; its reappearance on head movements after cessation of rotation an even more startling event. Adaptation was evidently limited to a certain stimulus range because, in some of the subjects, strong stimulus generated by sudden cessation of rotation at the end of the experiment resulted in the perception of the oculogyral illusion in the horizontal plane. The relation between perception of the illusion and exhibition of eye movements was not determined but will be explored in a later experiment. That adaptation involves a central mechanism is suggested by the fact that the oculogyral illusion was perceived after cessation of rotation of the room. This reappearance of the illusion under conditions in which it is normally not perceived indicates that afferent stimuli from the canals were perceived in an unusual frame of reference which leads to a modified perceptual experience.

Nausea or the "nausea syndrome" was a regular complaint but not always the most distressing; its less severe form was referred to as "stomach awareness." Despite the desire of experimenter and subject to avoid vomiting, it sometimes occurred because the degree of nausea was not always a reliable indicator of the likelihood of its occurrence. Pallor was frequently present in the absence of nausea and invariably an accompaniment when nausea developed. There was not a close correlation between degree of nausea and amount of sweating; profuse sweating was noted in persons who complained of slight nausea, while in others moderate nausea and even vomiting were experienced with little or no sweating.

Difficulties in neuromuscular coordination were exhibited in walking, but only to a negligible extent in use of the hands and arms. An obvious reason for the difference lay in the fact that movements of the head occurred while walking whereas head movements were minimal at the times when tasks were performed only with the hands and arms. In any event, difficulties in walking, especially walking toe-to-heel, disclosed the important role of the semicircular canals. The deaf subject had difficulty in walking toe-to-heel under ordinary conditions; this was not made worse under conditions of rotation. The implications here are that the sensory organs of the inner ear are essential to carrying out this procedure and that the physical forces generated by the rotation did not affect it in their absence. Normal subjects experienced little difficulty in walking toe-to-heel under ordinary conditions but experienced progressively greater difficulty with increasing velocity of rotation of the room. Upwards of 50 subjects have been examined in this respect, and few have been able to walk six consecutive steps on the first attempt while the room was rotating 5 rpm or higher. The difficulty was ascribed to an "inner instability" and not to instability of the platform which seemed firm and level. The ability to stand still without difficulty and inability to put one foot in front of the other was a cause for wonderment on the part of all subjects.

Certain symptoms such as the oculogyral illusion, difficulty in walking, and a characteristic "pulling" sensation in the head were present only when certain patterns of stimulation were acting, while nausea, headache, and malaise were not immediately affected by cessation of stimulation. Moreover, reflex symptoms such as the visual illusions undoubtedly aggravated or induced other symptoms. Finally, the perseveration of symptoms involved mechanisms or physiologic states not readily reversible.

Individual Variation. Four of the five normal subjects were unusually resistant to motion sickness as revealed by interview and questionnaire; this difference in predisposition was amply confirmed during the course of the experiment. The exception had a history of "average" susceptibility. This subject, though highly motivated to engage in the experiments and willing to persevere despite great personal discomfort, was not only unable to perform ordinary tasks while rotating at 5.44 rpm but also became anxious and introspective, manifested abdominal distention and sighing respirations, and his electrocardiogram showed inverted T waves. He was not greatly relieved of his symptoms by recumbency, and at the end of the experiment he appeared debilitated. There were differences among the four resistant subjects explicable in part on physiologic and psychologic factors. One subject, far from robust, probably benefited from the fact that he had abnormally high thresholds of response to stimulation of the semicircular canals as revealed by the caloric test and oculogyral illusion. One subject, who had had considerable experience on the human centrifuge and who had never been motion sick, experienced severe symptoms at 5.44 rpm whereas the other three nonsusceptible subjects did not. A possible explanation is the fact that he had not participated in earlier experiments at slower rates of rotation. However, his excellent adaptation before the end of the experiment was in accord with the original estimate of low susceptibility. Differences in the type of symptoms were as prominent as differences in the general susceptibility.

By far the more conspicuous display of individual variation was observed during incidental experimental runs when a more random population was sampled. Here were displayed great variations in (1) readiness with which symptoms appeared, (2) their relative prominence, and (3) the period required after cessation of rotation before the effects disappeared. A few examples illustrate these differences. One subject, after moderate exposure, moving about the room for 12 minutes while rotating at 6 rmp, experienced headache which persisted throughout the day and into the next. Still others, after moderate exposure, complained of dizziness and generalized sweating which persisted for hours afterward. Abdominal pain which persisted for over an hour was a chief complaint in another instance; and after exposure for less than 20 minutes, many subjects complained of nausea which persisted as a stomach awareness well into the next day.

Adaptation. The degree and rapidity with which symptoms decreased or disappeared astonished both the experimenters and subjects. Inasmuch as



the patterns of stimulation of the canals were intermittent, it seems unlikely that the peripheral receptors were fatigued or for any other reason incapable of responding normally. This assumption is supported, in part at least, by the fact that immediately after cessation of rotation, movements of the head caused a return of symptoms. Such being the case, then adaptation at the cerebrospinal level must have involved many separate neurophysiologic mechanisms or activities. This is suggested by the fact that the pattern of adaptation differed in the case of different symptoms, some persisting longer than others. In general, adaptation began in a matter of hours, and great improvement was observed by the end of the first day when the symptoms were mild, and by the end of the second day when severe. This adaptation response emphasized the extraordinary manner in which the central nervous system affects a readjustment of a discrepant sensory input, enabling the previously disturbed functions to operate effectively and probably normally for the new conditions. The practical implications are not unimportant either with regard to preconditioning a person likely to experience such disturbing events and investigating the various means whereby this desired effect is maintained, or restored if lost.

Aftereffects. Subjects who became very well adapted during the period of rotation reexperienced some of the symptoms and manifested certain difficulties on cessation of rotation; sometimes these symptoms were greater than those during rotation. Probably the most conspicuous feature was difficulty in walking, especially toe-to-heel. Subjects felt unsure of themselves in maintaining equilibrium while walking. They referred the cause of the difficulty to something "within" and one even had the feeling that the platform was not level or that it was unstable. Another prominent feature was fatigue and need for sleep. Reappearance of the oculogyral illusion on moving the head was also observed but was not prominent nor considered to be a cause of the difficulty in walking. Nausea or the nausea syndrome reappeared, and one subject vomited for the first time after cessation of rotation. However, the various symptoms and complaints were usually slight in severity, and recovery was fairly rapid. As a rule there was a parallelism between the general symptomatology during adaptation and readaptation but the severity far less in the latter case.

Canal Sickness. The term "canal sickness" has been used to particularize one etiologic type of motion sickness, namely, that type due to stimulation of the sensory receptors in the semicircular canals. It may be defined as a widespread display of neurogenic and hormonal effects in otherwise healthy persons as a result of unusual patterns of stimulation of the semicircular canals. Although prone to occur in susceptible persons, symptoms are experienced regularly if the stimulus is adequate. Certain bizarre patterns of stimulation are more likely to provoke symptoms than other patterns, and random variation in pattern is more effective than the same pattern continuously repeated. The cardinal subjective symptoms are malaise, apathy, visual illusion, and nausea. The principal objective symptoms are difficulty

in walking toe-to-heel, oliguria, and shock. Some of the symptoms are experienced only while the stimulus is acting, but other symptoms, representing a change in physiologic state, appear and disappear in time. Unless the symptomatology is overwhelming, there is a tendency for adaptation to occur which, after a number of hours or days, leads to a lessening or even disappearance of symptoms.

The similarity in symptomatology between canal sickness and motion sickness raises the question whether—or to what extent—they have a common etiology. The fact that loss of function of the inner ears greatly reduces or prevents motion sickness in animals and man narrows the question down to the relative role of the semicircular canal and otolith apparatus. Many investigators are of the opinion that motion sickness has its genesis primarily in the otolith organs, others implicate the semicircular canals, while some emphasize the role of both sensory organs. Johnson was the first to emphasize the importance of head movements in precipitating, and restraint of head movements in preventing, motion sickness. His studies emphasized the important role of semicircular canals in causation and prevention of motion sickness under the conditions of his experiment. The results of the authors' study are interpreted as supporting his findings.

Canal Sickness and Vasodepressor States. The fact that there are similarities between the symptomatology of canal sickness and vasodepressor states is interesting. The initiating stimulus in the latter is of psychic origin and has been the subject of interesting speculation. It would appear that the region of the hypothalamus is involved with widespread neurohormonal activity. The fact that generalized vascular dilation is always a prominent feature is explained by the fact that it is the manifestation by which the syndrome is identified. Fainting has never been a prominent feature of motion sickness, although mild cardiovascular symptoms are frequently displayed. In any event, the slow rotation room unquestionably placed the subjects in a stressful situation—particularly at the higher angular velocities—which produced profound effects. The technic used has great possibilities for other studies of stress and function of the semicircular canals in motion sickness. (Opinions or conclusions contained in this article are those of the authors. They are not to be construed as necessarily reflecting the view or endorsement of the Department of the Navy.)

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Science and opinion are two different things: Science is the father of knowledge but opinion breeds ignorance.

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**RESERVE****SECTION**Officer Promotion Policies

Each year, from January until June, approximately 40,000 Naval Reserve officers focus their attention on the selection boards meeting in Washington, D. C. These specific items of background information on Reserve officer promotion policies and procedure conclude the discussion begun in the News Letter of 3 February 1961.

Important Dates. When the recommendations of a selection board have been approved by the President, the officers named are then officially on a promotion list, and the list may be announced for the first time. Actual deliberations of the board, however, are secret and may not be revealed.

The date the President signs the board's report has, by a recent amendment to the law, become important to the individual officer. This date has a direct effect upon his pay and allowances in the higher grade. Before fiscal year 1961, officers were entitled to the pay and allowances from their date of rank. Now, officers who are promoted will be entitled to the pay and allowances of the higher grade from their date of rank provided they complete their professional qualifications within one year following the date the President approves the report. Otherwise, they will be entitled to pay and allowances only from the date of appointment, that is, the date the Secretary of the Navy signs the appointment. Dates of rank, however, will not be affected since they are controlled by law in accordance with the running mate principle.

Qualifying for Appointment. Although the date the President approves the report of a selection board affects pay and allowances, it has no bearing on the SecNav requirement that officers must qualify professionally—by earning an average of 24 promotion points for each year in grade, up to a maximum of 144—within one fiscal year following the fiscal year in which selected.

If officers do not qualify within one year, they are considered not professionally qualified and their selection is in jeopardy. (This "one fiscal year requirement" applies only to officers selected in Fiscal Year 1962 and thereafter. Officers selected in Fiscal Year 1961 still have two fiscal years in which to qualify.)

To establish his professional qualifications, an officer must have credited to his record (maintained by RORA in Omaha) the required promotion points before the terminal date for establishing his qualifications. In this regard, the date of application for credit for college or residency training is

important. If an officer on a promotion list requests such credit after the terminal date—even though the training is creditable—he has failed to "establish" his professional qualifications as prescribed.

Therefore, all officers taking part in college or residency training should request credit for this training as soon as they satisfactorily complete 12 semester hours. (Twelve promotion points are the maximum allowable for this training in any one year.)

Failure to Qualify. The name and record of an officer who fails to establish his professional qualifications within the time prescribed are submitted to the selection board constituted as an examining board the following fiscal year. A determination is then made as to whether the officer should be retained on the promotion list. If he is retained by the examining board, he will be given additional time in which to complete his professional qualifications. If he is not retained, he is considered by law as having twice failed of selection and must again stand selection.

SecNav regulations provide that officers who have completed their professional qualifications, but fail to qualify physically and accept their appointment within six months following the date on which they qualify professionally, may have their name placed before the Naval Reserve Mobilization Disposition Board.

All officers in this category are currently being referred to this Board which may recommend discharge, transfer to the Inactive Status List (ISL) for lack of interest, or retention in an active status.

Ensigns who are appointed lieutenants (junior grade) upon completion of the required service must qualify and accept appointment within one year from the date of their appointment. Ensigns who fail to qualify must also face Disposition Board action.

Transfer to the ISL. What effect does transfer to the Inactive Status List have upon an officer?

First and foremost, he is no longer able to take part in Reserve training except by enrolling in correspondence courses. While on the ISL he may earn promotion points through correspondence courses, but he cannot earn retirement points.

Second, under present law, officers cannot be considered by a selection board until one year following the date of removal from the ISL. For example, consider a lieutenant commander who has been on the ISL and who is removed from the list on 1 April 1961. By 30 June 1961, he may have earned the required points and be otherwise eligible for consideration for promotion. But—because the selection board meets in January 1962—his name and record cannot be presented to the Fiscal Year 1962 board. He cannot be considered for promotion until the following year. This provision does not constitute "failure of selection," however.

As a third effect, transfer to the ISL of an officer on a promotion list terminates his selection—regardless of the reason for transfer to the ISL.



This year alone, some 300 officers who had been selected, but who had not accepted their appointment before their transfer to the ISL because they had been declared not available for mobilization by the Director of Selective Service, had their selection terminated. This action is required by law.

Attrition Modified for Some. Officers who have completed the authorized years of total commissioned service (actual and constructive) and who have twice failed of selection to the next higher grade are normally transferred to the appropriate retired list if qualified, or discharged. This policy is called "attrition." Lieutenant commanders and below are allowed 20 years' total commissioned service, commanders are allowed 26 years, and captains, 30 years.

Recent amendments to this provision of law will allow the Secretary of the Navy to retain officers in an active status in the grade of lieutenant commander only up to five years beyond their normal attrition date. This change has been made to help maintain the strength of the Ready Reserve.

Therefore, eligible officers in the grade of LCDR who would not otherwise be eligible to qualify for retirement with pay may now have that opportunity.

Another change provides that all officers who received constructive commissioned service upon original appointment may be "given back" those years if, during the deferment period, they can complete 20 years of satisfactory federal service for retirement with pay. In other words, if an officer has four years of constructive commissioned service at the time he would normally be subject to attrition, he will be permitted to remain in an active status if he can complete his 20 years for retirement purposes during those four years.

Since these amendments were not signed into law until 20 June 1960, they do not apply to any officer whose involuntary separation was required during Fiscal Year 1960.

Promotion After Retirement. Another change to the law provides for the promotion of Naval Reserve officers who are on a promotion list and who, before accepting their promotion, are transferred to the Retired Reserve (or discharged, as required by law). This action must result from physical disability, completion of authorized service, or the attaining of the mandatory retirement age.

Therefore, a Reserve commander selected for promotion to captain who, before he can effect his appointment, reaches the mandatory retirement age, will be retired in the grade of captain. Of course, no additional pay or allowances will accrue because of this promotion. (The Naval Reservist, December 1960)

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Navy Nurse Corps Symposiums  
During NLN Convention

A series of symposiums conducted by the Navy Nurse Corps has been planned to be held during the National League for Nursing Convention at Cleveland, Ohio, 10 - 14 April 1961. Club Room "C" in the Public Auditorium has been reserved for this purpose, 10 - 13 April, from 1130 to 1330 hours each of the four days. One retirement point may be credited to eligible Nurse Corps Reserve officers not on active duty for attendance at each day's session; a maximum of four retirement point credits are authorized per eligible officer.

The tentative schedule includes: 10 April—Welcome Remarks, CAPT R. A. Houghton, Director, Nursing Division, BuMed; and the Reserve Program, CDR M. C. Grimes (USNR). 11 April—Selection of Nurse Corps Officers, CDR B. Blaska; and Indoctrination Course, LCDR D. VanGorp. 12 April—Nursing Service in a Naval Hospital, CAPT R. Erickson; The Functions of an Educational Coordinator, LCDR A. Conrad; and Education Programs for Nurse Corps Officers, LCDR O. Upchurch. 13 April—Nursing Research in the Navy, LCDR M. V. Gearing; and Visual Aids, LT P. H. McIntyre (USNR).

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**DENTAL**



**SECTION**

Quadrant Dentistry

Newer operative technics and equipment have made it possible to practice full mouth dentistry with more satisfaction to the dentist as well as to patients. This is probably best accomplished by working on a quadrant basis—using longer appointments. However, doing dentistry by quadrants gives rise to certain problems. It becomes desirable for all concerned to consolidate several shorter "one filling" appointments into a single session since the total time involved will be less with this arrangement. Also, there is a need to educate the patient to want and accept quadrant dentistry.

The entire dental office staff must take every opportunity to explain dentistry—good dentistry—to the patient. Educating patients to accept the best treatment it is possible to offer is the key to the successful practice of dentistry. This is true beyond dispute because if the patient understands why any given procedure should be done he is more likely to follow advice. Ideal



dentistry then becomes a routine because the circumstances of treatment are routinely ideal when working on this basis.

When doing quadrant dentistry, a convenient storage arrangement is essential and adequate vacuum equipment is necessary for the patient's comfort and the dentist's maximum efficiency.

The advantages of this type of practice are many. To the patient, it means less time in the chair and less time away from his usual activities. For the dentist, practicing quadrant dentistry enables all the patient's work to be done in a minimum of time. It allows—in fact it requires—that a complete and comprehensive diagnosis be made. This is not only the way it is taught, but also it is the most rewarding and satisfying way to do dentistry. Patients' treatment can be completed with a minimum number of appointments if efficient utilization is made of time, assistants, equipment, and skill. (Byron Woodside, Irving Imburg, The Dental News Letter of Northern Virginia, Southern Maryland and D. C., January 1961)

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#### Economy of Operations

The Dental Officer, as the head of the Dental Department, is required by Navy Regulations to insure economy in the use of public money and stores. This prescribed duty may not be construed to relieve his subordinates of their responsibilities which, among others, include "proper care, preservation, and economical use of equipage and stores in their charge."

The Dental Officer is responsible for instituting in the Dental Department an aggressive continuing program to promote cost consciousness among all hands. An invitation for suggestions and improvements in operations should stress conservation of utilities, materials, and manpower because these areas appear to promise the greatest savings. However, a cost consciousness program should aim at economy in all operations.

Cost consciousness is a point of view that can stimulate the individual's interest in his work and add to the unit's pride in its accomplishments. Each individual, civilian and military, is responsible for seeking out, and putting into effect, improvements in his own work operations and in the work operations of any persons he may supervise.

The following selected check points are suggested for use in a continuous management improvement program for a Dental Department.

Conservation of Dental Materiel. The Dental Officer must evaluate the usage rates for dental materiel used in the Dental Department in relation to the total dental services rendered. Stock levels in dental storerooms should be reduced to a minimum to prevent excessive inventories or stockpiling. This effort should extend through every level in the Dental Department

organizational structure. Inventories in all dental operating room units, clinic "working-stock" storerooms, when used, and prosthetic laboratories should be reduced to a level consistent with normal operations.

Conservation of Manpower. Effective utilization of human skills is more vital now than ever before. Effective utilization of human resources by wise placement, rotation of duties, training, and review of the distribution of functions demands continuous study and effort. The Dental Officer supervising military and/or civil personnel should: (a) Continually review billets and positions to determine that skills are being effectively utilized. (b) Review billets and positions for proper work distribution. (c) Reduce overtime work and hold absences and tardiness to a minimum. (d) Postpone the filling of vacant billets or positions until a critical review has established the necessity for filling them. (e) Promote training programs.

A Commanding Officer should evaluate the administrative efficiency of the dental officer(s) serving under him in terms of the foregoing considerations. In the Report on the Fitness of Officers (NavPers-310) the section entitled Management Effectiveness calls for an estimate of how well the officer in question utilizes men, money, and materiel.

A function of the Inspector General, Dental, while conducting surveys of dental facilities, is to inquire into the availability of instructions pertaining to a plan for conservation of manpower, materials, and utilities in dental spaces.

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### Improved Waiting Rooms

Major Leonard Berlow USAF MSC, Whiteman Air Force Base Hospital, Missouri. A Waiting Room is a Waiting Room . . . Is a Waiting Room? Milit Med 125: 765-766, November 1960.

The mere fact that a waiting room provides chairs, magazines, and an appointment is not enough. If a hospital does only these things, then its attitude toward patients should be examined critically. This may cause resentment by patients and effect adverse doctor-patient relationships.

There are many ways hospitals can make waiting rooms more attractive. Some require the expenditure of funds, but spending money in this area is an investment that will pay any hospital big dividends—fast.

The complexion of your waiting room (and your patients, too) will take on a cheerful air with some bright paint. Bold colors seem to relax already tense patients. A remarkable change was noted in patients' attitudes when the waiting room at the USAF Hospital, Wright-Patterson Air Force Base, Ohio, was transformed into a "living room" atmosphere by the addition of wallpaper murals on what were once dull walls. Bright paint on door frames and trimmings made this waiting room even more impressive.



By all means, check your lighting. Antiquated fixtures emitting tiny rays of light only add headaches to already sick patients. Take advantage of that bright new paint to reflect light.

Waiting room furniture need not be ornate. It should be comfortable and relaxing. There must be a sufficient amount to accommodate all patients. (Proper scheduling of patients will help to reduce the number of patients in the waiting room. —Editor)

Here's an idea that costs nothing to try and is liked by waiting patients. Place chairs in informal groupings. Avoid that formal "railroad station" look with chairs in familiar straight lines, back to back.

A proven, yet inexpensive, way to cheer up a gloomy waiting room is with colorful cheerful pictures. Patients don't really want to sit and stare at framed pictures of airplanes and things that remind them of their work. Use pictures with scenes that will put patients in a happy mood.

Local volunteer workers or Wives' Clubs would like to provide your hospital with curtains—just for the asking. It might be worth looking around for bare windows in need of curtains.

For some reason, one out of every five patients wants to use a phone in the waiting room. Is yours a "down the hall and turn right" inconvenience? Why not place one on the counter and invite patients to use it with a pleasant sign? Of course, a nearby telephone booth for longer distances is necessary and appreciated.

Cleanliness is an absolute necessity. The most expensive furniture and all the other trimmings will mean nothing if floors are dirty and dust is allowed to accumulate in the waiting room. This area needs constant attention. Ash trays should be emptied frequently. Torn dirty and outdated magazines indicate indifference toward patients.

What could be less expensive than courtesy? Everyone has a title—and the waiting room is no place to forget it. When announcing the next patient, make it "Mrs. Richardson, please," or "Captain Smith, please." It's such a little thing that will mean much for your hospital.

Why not plan to wait in your waiting room? It's a wonderful way to find out whether your hospital is doing all it can to make its outpatients' wait a comfortable one.

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### Postgraduate Course in Oral Pathology

A postgraduate short course, Pathology of the Oral Regions, will be held at the Armed Forces Institute of Pathology, 10 - 14 April 1961. The course is designed to present to dentists and physicians, both civilian and military, the latest developments in the field of Oral Pathology, with special emphasis on the pathology of the oral mucosa and jaws, as well as oral manifestations of

systemic diseases. The material will be presented by specialists from civilian dental schools and various governmental agencies as well as from the staff of the Institute. CAPT Louis S. Hansen DC USN, Chief of the Dental and Oral Pathology Division, will be the director of the course.

U. S. Navy Dental officers desirous of attending the course at no expense to the Government should forward their applications via chain of command to the Bureau of Medicine and Surgery at least 8 weeks prior to the opening date of the course. In addition, officers not on active duty have the option of applying in a civilian status; in which case, applications should be forwarded directly to the Director, Armed Forces Institute of Pathology, Washington 25, D. C., Attn: Education Office.

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AFIP Slide Sets Available. Lantern slide teaching sets on Dental and Oral Pathology prepared by the Armed Forces Institute of Pathology are available on loan to qualified personnel. The 2" x 2" slides, presenting clinical, gross, microscopic, and x-ray material, include: (1) Anomalies, Odontogenic Cysts and Tumors—100 slides in color; (2) Benign and Malignant Oral Tumors—100 slides in color; (3) Lesions of the Jaw Bone—100 black and white slides plus 50 microscopic slides; (4) Gingival and Periodontal Lesions—64 slides in color; (5) Mouth Diseases—95 slides in color; (6) Oral Manifestations of Systemic Diseases—95 slides in color. A complete list and order blank may be obtained upon request to: Director, Armed Forces Institute of Pathology, Washington 25, D. C., Attn: Medical Illustration Service.

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